

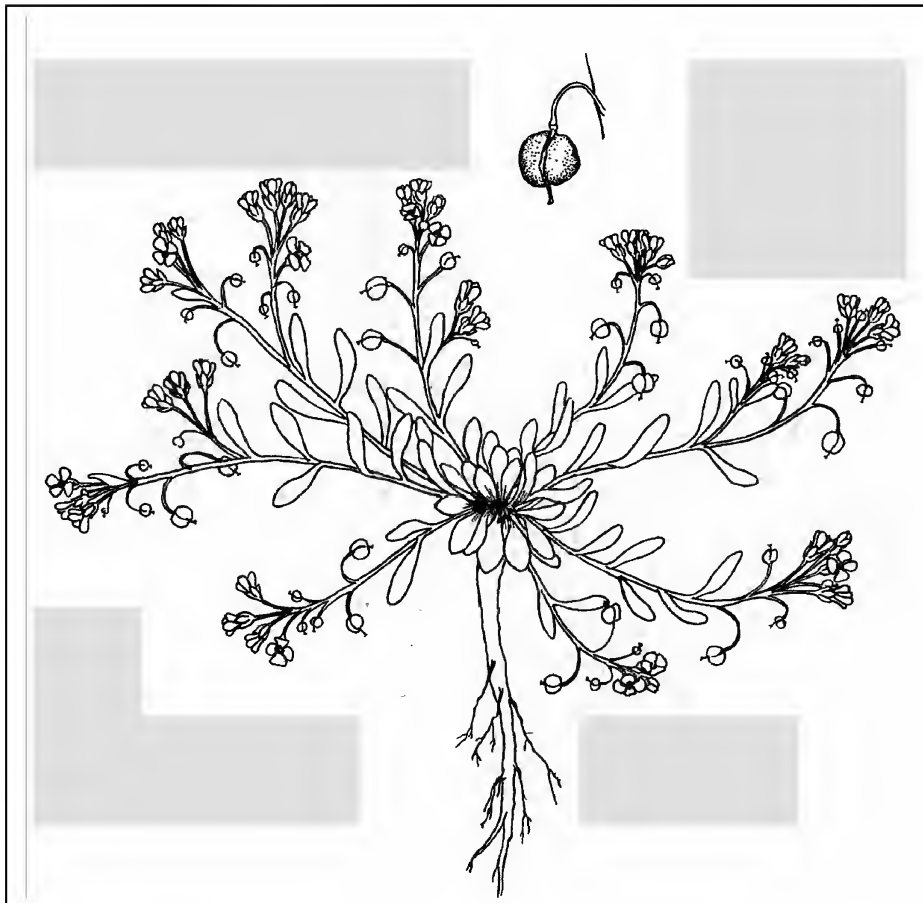


Castilleja

A Publication of the Wyoming Native Plant Society

www.uwyo.edu/wyndd/wnps/wnps_home.htm

May 2003
Volume 22 No. 2



Lesquerella macrocarpa by Jane Dorn
(from Dorn and Dorn 1980)

JACK MORROW HILLS FIELD TRIP

Lesquerella macrocarpa (Large-fruited bladderpod) is a state endemic known from 9 occurrences in 3 counties. The known range of the species occupies an area less than 25 mi² (Fertig 1995).

Wyoming Native Plant Society will explore Bush Rim, Large-fruited bladderpod habitat, on May 31, Saturday pm in the Jack Morrow Hills.

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2003 WNPS Annual Field Trip
– see p. 5

Remember to return your
Election Ballot!

References

- Dorn, R.D. and J.L. Dorn. 1980. Illustrated Guide to Special Interest Vascular Plants of Wyoming. Published by US Fish and Wildlife Service and Bureau of Land Management.
- Fertig, W. 1995. Status report on *Lesquerella macrocarpa* in southwestern Wyoming. Unpublished report prepared for the BLM Wyoming State Office and the Rock Springs District by the Wyoming Natural Diversity Database, Laramie WY.

WNPS NEWS

2003 Student Scholarship winner: A 2003 WNPS Scholarship of \$400 is awarded to Erin Berquist (Colorado State University) for her masters thesis research "Vegetative survey quantifying the effects of coalbed methane on native and non-native flora in the Powder River Basin, Wyoming." Species composition and species-area relationships will be measured and compared between developed and undeveloped areas. Berquist is working with Tom Stohlgren, other CSU faculty and USGS staff. We are proud to support this research.

Election: Please return your ballot in this issue! Ballots will be accepted up until the annual meeting, and election results announced at that time.

Announcing: 2003 WNPS Photo Contest

Get your cameras ready! The Wyoming Native Plant Society SECOND Annual Photo Contest will close October 30, 2003. Photos will be judged on content, clarity, creativity, and originality in the following categories:

- Vascular
- Nonvascular
- Populations
- Landscapes

Photographs must have been taken in Wyoming by WNPS members. Please submit entries as slides if possible. Our judging team will include a non-member who is a professional photographer. The prize is \$25.00 plus a free 1-year subscription to *Castilleja*. The winning entry will be printed in the May issue. Send your entries in fall, labeled with your name and subject, indicating the category, and postmarked by 30 October, to:

Wyoming Native Plant Society
P.O. Box 3452
Laramie, WY 82071

Contributors to this issue: Jean Daly (JD), Jane Dorn, Robert Dorn, Bonnie Heidel (BH), Jennifer Whipple (JW).

New venture in Wyoming plant conservation conference

Announcing Fall Conference:

CONSERVING NATIVE LANDSCAPES AMONG ENERGY DEVELOPMENTS

**October 8 conference
October 9 field tours**
in
Pinedale, Wyoming

*-WHAT EVERY BOTANIST NEEDS TO KNOW-
Featuring*

Interagency speakers,
Industry experts,
Academic researchers

Agenda fliers will be posted and mailed
by agencies

Agenda committee: Mary Jennings, Jim Glennon,
Jeff Carroll, Bonnie Heidel

Wyoming Native Plant Society
PO Box 3452, Laramie, WY 82071

President: Jennifer Whipple (Mammoth) - 344-7988
Vice President: Jean Daly (Sheridan) - 674-9728
Sec.-Treasurer: Drew Arnold (Laramie) - 742-7079
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Newsletter Editor: Bonnie Heidel (Laramie;
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Teton Chapter: PO Box 82, Wilson, WY 83014, Joan
Lucas, Treasurer
Bighorn Native Plant Society: PO Box 21, Big Horn, WY
82833, Jean Daly, Treasurer

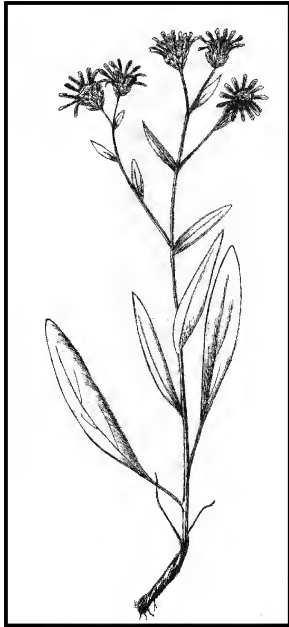
New Members: Please welcome the following new members of WNPS: Martha Christensen (Madison, WI), and Jackie Ellis (Casper).

Treasurer's Report: Balance as of 28 February 2003: General Fund \$442.65; 2004 Student Scholarship Fund: \$239.00; Total funds: \$681.65. Box 3452, Laramie, WY 82071.

Asters Retreat to Eurasia

by Robert Dorn

(Editor's note: The author has addressed many of the biggest taxonomic shake-ups in the current state flora through newsletter articles over the past two years. See "Changing Times, Changing Floras," *Castilleja* 20(4). If you have suggestions for sequels, please mail them to: Robert Dorn, P.O. Box 1471, Cheyenne, WY 82003.)



Once *Aster mollis*, now
Symphyotrichum molle,
By Walter Fertig
(Fertig et al. 1994).

The genus *Aster* in a broad sense has been a catch-all genus. It has long been known that there are as many as six different base chromosome numbers in the group ranging from $x = 4$ to $x = 13$. This is usually a good indication that we are dealing with significantly dissimilar elements. In 1994, Guy Nesom attempted to reclassify the genus into a number of smaller genera based mainly on morphology and cytology. In the same year, Chunsheng Xiang and John Semple presented results of a molecular study at a conference at Kew which partly supported Nesom's classification. They concluded that *Eucephalus*, *Ionactis*, and *Oreostemma* should be recognized as genera and that *Symphyotrichum* could be included in *Aster* or recognized as a separate genus. A later study by Noyes and Rieseberg added more data, and they concluded that the distinction of Eurasian and North American *Aster* supports Nesom's hypothesis that *Aster* in a strict sense is restricted to Eurasia and is not closely related to the North American genera. This prompted Semple and Xiang with several other authors to largely embrace Nesom's earlier classification by now recognizing at the generic level *Eurybia* and *Symphyotrichum*.

If we look at Wyoming's species in this complex, it is fairly easy to recognize most of these segregated genera. The genus *Eucephalus*, which was recognized as a genus in 1841, contains the species with chaffy (non-herbaceous) involucre bracts. *Eurybia* has the species with large, broad leaves largely confined to the stem (no basal tuft). *Ionactis*, recognized in 1897, has small crowded leaves with solitary heads on nearly naked peduncles. *Oreostemma*, recognized in 1896, has very narrow leaves in a basal tuft and solitary heads, and is mostly alpine or subalpine. *Almutaster* usually has rhizomes, narrow leaves, is glandular above, and grows mostly in alkaline areas. *Symphyotrichum* is the largest group representing what most people recognize as a typical *Aster*. Our two species with inconspicuous or no rays fall into this group although these have sometimes been placed in their own genus, *Brachyactis*. The overall result is to take a large diverse genus and remove the conspicuously different species or small groups of species and treat all of the remaining species in *Symphyotrichum* rather than *Aster*. When broken down in this manner, it seems to be a more clear arrangement than dumping everything into the same group. ...A name shorter than *Symphyotrichum* would have been nice, however.

References

- Nesom, G. 1994. Review of the taxonomy of *Aster* sensu lato (Asteraceae: Astereae), emphasizing the new world species. *Phytologia* 77: 141-297.
- Noyes, R. D. & L. H. Rieseberg. 1999. ITS sequence data support a single origin for North American Astereae (Asteraceae) and reflect deep geographic divisions in *Aster* s. l. *Amer. J. Bot.* 86: 398-412.
- Semple, J. C. et al. 2001. Chromosome number determinations in fam. Compositae, tribe Astereae. VI. Western North American taxa and comments on generic treatments of North American asters. *Rhodora* 103: 202-218.
- Xiang, C. & J. C. Semple. 1996. Molecular systematic study of *Aster* sensu lato and related genera (Asteraceae: Astereae) based on chloroplast DNA restriction site analyses and mainly North American taxa. Pp. 393-423, in D. J. N. Hind & H. J. Beentje (eds.), *Compositae: systematics. Proc. Intern. Compositae Conf., Kew, 1994. Vol. 1.*

A Range Botanist Remembered



Alan Ackerman Beetle, professor emeritus, University of Wyoming, College of Agriculture (often known as "Doc") passed away on March 27, 2003.

Beetle was born June 8, 1913 in Hanover, N.H. and graduated with a bachelor's degree in botany from Dartmouth College in 1936. That winter was spent studying under the guidance of Professor M.L. Fernald at the Gray Herbarium, Harvard University. Fernald suggested *Scirpus* as a research problem and *Scirpus* became the subject for a M.A. thesis at the University of Wyoming working under Aven Nelson, completed in 1938.

The following summer and winter were spent in South America collecting plants for the world fairs in San Francisco and New York. This trip resulted in the publication, *Phytogeography of Patagonia*. Doc then completed his PhD at the University of California (Berkeley) Botany Department under the direction of Lincoln Constance, W.L. Jepson, and A. W. Sampson where he stayed and worked as the last of a long line of agronomists at Berkeley. Studies in the Cyperaceae resulted in 27 publications in the 11 years from 1938 to 1948.

In 1946 the Beetles returned to Laramie where he developed the Department of Range Management and taught until his retirement in 1979. He was particularly active in the Society for Range Management, responsible for the organization of the Society's first state chapter, the Wyoming Chapter. He was also active in forming the Laramie Audubon Chapter and other organizations.

At the request of a regional research group, Beetle undertook a study of the taxonomy and distribution of the big sagebrush complex. He

published a classic treatment of the group in 1960 which gave strength and meaning to sagebrush research. Of particular usefulness has been his division of *Artemisia tridentata* into three subspecies. However, the recognition of all species of sagebrush as representing edaphic climaxes is of equal importance. In 1982 he co-authored "Sagebrush in Wyoming" (B-779) with K.L. Johnson.

Many of his Wyoming specimens are in the Rocky Mountain Herbarium, and his worldwide grass collections are in the Beetle Herbarium at the UW College of Agriculture.

Since retirement Doc had been an adviser to the Mexican government on the production of useful information about Mexico's natural resources, particularly grasses. This work has resulted in the writing of a seven-volume treatment of the grasses of Mexico, leaving his mark on Mexican agrostology just as he did across the mountains and plains of Wyoming (from tribute by Quentin Skinner, UW, and Casper Star-Tribune of 30 March 2003).

Field Trips for 2003 Bighorn NPS

Saturday, May 17

Meet at Our Lady of the Pines Catholic Church, 9:00 am until noon

Dick Birkholz will be the leader and NPS joins the Sheridan Garden Club to explore spring flowers.

Wednesday evening, May 28

Meet at the base of Steamboat Rock, 5:30 pm

This is always a wonderful place to look for plants any time of year. Dick Birkholtz is leading the trip. Just try to find a plant that he doesn't know.

Saturday, June 21

Meet at Burgess Junction Visitor Center, 9:00 am

Earl Jensen will lead this all-day trip to Hunt Mountain. He is author of *Flowers of Wyoming's Big Horn Mountains and Big Horn Basin* and also a well-known photographer. Bring lunch and water.

Tuesday evening, June 24

Meet at Steamboat Rock, 5 pm

Dick Birkholtz is leading a trip to explore Steamboat Rock and the surrounding area.

Saturday, July 26

Meet at Burgess Junction Visitor Center, 7:00 am

Earl Jensen will lead this all-day trip to the Dry Fork area. Bring lunch and water. JD



2003 Wyoming Native Plant Society Fieldtrip – **JACK MORROW HILLS**

Join Wyoming Native Plant Society in the Jack Morrow Hills, May 31 – June 1. Saturday morning will be spent at Killpecker Dunes and the afternoon at Bush Rim. Sunday morning we will visit Pacific Rim or Oregon Buttes, not far from the *real* South Pass continental crossing and other sights. A more detailed map of the tour route and area will be handed out at the event.

There are two alternative places to meet. First, people can meet at the BLM Rock Springs Field Office on Saturday, by 8:45 am. It is located at the north end of town on Hwy 191 approximately 3 miles north of I-80, just past a large new building for the Highway Department on the right (east) side. Vehicles can be left by anyone returning to Rock Springs who wants to carpool. Second, people can meet at 9 am, app. 10 miles north of Rock Springs on Hwy 191, at the turn to the Jack Morrow Hills. The turn is a gravel road immediately

north of mile marker 10, and there is a large pull-off from the gravel road at its junction with Hwy 191.

Undeveloped camping facilities without shelter are in the area. The nearest towns are Lander or Rock Springs if you are interested in motels. Feel free to call Jim Glennon (w: 352-0336) if you have questions. Everyone is welcome and is encouraged to advance-register to be sure no one is left behind. There is a place to advance-register on the enclosed ballot. BH

“Weed Like You to Know...”

Copies of a striking new Wyoming Weed Poster, by the above title, have been printed by the Bureau of Land Management (BLM) and are available free from the BLM Wyoming Office (state_office_wymail@blm.gov). The color poster is printed on both sides – you might want to order at least TWO copies.

Teton Science School Classes

Flora of the Tetons, June 26-29, 2003

Leila Shultz, Utah State and Harvard University

Grass Identification, July 20, 2003

Stuart Markow, University of Wyoming

For information on fees, or to register, call Teton Science School at 307-733-4765 or visit the web site at

<http://www.tetonscience.org/> .

Yellowstone Institute Classes

Wildflowers of the Mammoth Area, June 22, 2003

Bill Edwards, retired from Laramie Community College

Wild edible plants and medicinal herbs, June 23-25,

2003 by Wayne Phillips, retired from Lewis & Clark NF

Plants of Yellowstone, July 6-8, 2003

Jennifer Whipple, Yellowstone National Park

Alpine wildflowers, July 12-14, 2003

John Campbell, Northwestern

For information on fees, or to register, call Yellowstone Institute, 307-344-2294 or visit the web site at

<http://yellowstoneassociation.org/> .



Wyoming Native Plant Society

PO Box 3452

Laramie, WY 82071

The Wyoming Native Plant Society, established in 1981, is a non-profit organization dedicated to encouraging the appreciation and conservation of the native flora and plant communities of Wyoming. The Society promotes education and research on native plants of the state through its newsletter, field trips, and annual student scholarship award. Membership is open to individuals, families, or organizations with an interest in Wyoming's flora. Members receive *Castilleja*, the Society's quarterly newsletter, and may take part in all of the Society's programs and projects, including the annual meeting/field trip held each summer. Dues are \$7.50 annually.

To join or renew, return this form to:

Wyoming Native Plant Society

PO Box 3452

Laramie, WY 82071

Name: _____

Address: _____

___ \$7.50 Regular Membership

___ \$15.00 Scholarship Supporting Member

(\$7.50 goes to the annual scholarship fund)

Return ballot to: Wyoming Native Plant Society, PO Box 3452, Laramie, WY 82071
By May 28 or bring to 2003 Jack Morrow Hills trip

